

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An apparatus comprising:

an inverse transformer for transforming transform domain watermark data comprising a plurality of transform domain coefficients into spatial domain watermark data comprising a plurality of spatial domain pixels which form spatial domain watermark data; and

a combiner for receiving material in the spatial domain, the material comprising a plurality of spatial domain pixels and combining the pixels of said spatial domain watermark data with the spatial domain pixels of said material in the spatial domain to form watermark data embedded material.

2. (Currently Amended) The apparatus of claim 1, wherein said inverse transformer receives said transform domain watermark data comprising a plurality of transform domain coefficients and transforms said transform domain watermark data into spatial domain data comprising a plurality of spatial domain pixels which form the spatial domain watermark data.

3. (Canceled)

4. (Original) The apparatus of claim 3, wherein said material is one or more of audio material and video material.

5. (Original) The apparatus of claim 3, wherein said material is data material.

6. (Currently Amended) The apparatus of claim 1, wherein said transform domain watermark data comprises a Pseudo Random Symbol Stream modulated by information to embed in the material.

7. (Currently Amended) The apparatus of claim 1, wherein said transform domain watermark data comprises a Universal Material Identifier (UMID).

8. (Currently Amended) The apparatus of claim 1, wherein said material and said spatial domain watermark data both comprise a digital bitmap.

9. (Currently Amended) The apparatus of claim 1, wherein said transform domain watermark data comprises a digital bitmap.

10. (Currently Amended) The apparatus of claim 1, wherein said transform domain watermark data comprises wavelet coefficients and said transformer is an inverse wavelet transformer.

11. (Previously Presented) The apparatus of claim 10, wherein said wavelet coefficients comprise information encoded in coefficients in at least two bands in at least one level.

12. (Currently Amended) The apparatus of claim 1, wherein said transform domain watermark data comprises DCT coefficients and said inverse transformer is an inverse DCT transformer.

13. (Currently Amended) The apparatus of claim 4, wherein said combiner arithmetically combines the pixels of said material and the pixels of said spatial domain watermark data.

14. (Currently Amended) The apparatus of claim 1, further comprising:
a strength adapter for adapting the strength of the pixels of said spatial domain watermark data in dependence on the spatial domain pixels of said material,
wherein said combiner arithmetically combines the spatial domain pixels of said material and said strength adapted pixels of the spatial domain watermark data.

15. (Currently Amended) The apparatus of claim 14, wherein said strength adapter comprises:

a generator responsive to the pixels of said material for generating strength control information; and

a multiplier for adapting the magnitude of the pixels of said spatial domain watermark data in accordance with said strength control information to produce said strength adapted spatial domain watermark data.

16. (Previously Presented) The apparatus of claim 15, wherein said material comprises spatial domain material and said generator generates strength control information responsive to said spatial domain material.

17. (Currently Amended) The apparatus of claim 15, wherein said generator receives the spatial domain pixels of said material, analyses each value of said material and generates strength control information.

18. (Currently Amended) The apparatus of claim 17, comprising:

a strength adapter for adapting the strength of the coefficients of said transform domain watermark data in dependence on the spatial domain pixels of said material, wherein said inverse transformer transforms said strength adapted transform domain watermark data into strength adapted spatial domain watermark data and said combiner arithmetically combines the pixels of said material and said strength adapted pixels of the spatial domain watermark data.

19. (Currently Amended) The apparatus of claim 18, wherein said strength adapter comprises:

a transformer for transforming the spatial domain pixels of said material into transform domain material comprising a plurality of transform domain coefficients;

a generator responsive to the coefficients of said transform domain material for generating strength control information; and

a multiplier for adapting the magnitude of the coefficients of said transform domain watermark data in accordance with said strength control information to produce strength adapted transform domain data comprising a plurality of transform domain coefficients.

20. (Currently Amended) The apparatus of claim 19, wherein said generator receives said transform domain material, analyses each ~~value~~ pixel of said transform domain material and generates strength control information.

21. (Currently Amended) A method comprising the steps of:

inverse transforming transform domain watermark data comprising a plurality of transform domain coefficients into spatial domain watermark data comprising a plurality of spatial domain pixels which form a spatial domain watermark data; and
combining the pixels of said spatial domain watermark data with the spatial domain pixels of material to form watermark data embedded material.

22. (Currently Amended) The method of claim 21, wherein prior to the inverse transforming step, performing the step of:

receiving the transform domain watermark data.

23. (Currently Amended) The method of claim 21, wherein the combining step comprises the step of:

arithmetically combining the pixels of said spatial domain watermark data and the spatial domain pixels of said material.

24. (Currently Amended) The method of claim 23, further comprising the step of:
adapting the strength of the pixels of said spatial domain watermark data in dependence on the spatial domain pixels of said material and outputting strength adapted spatial domain watermark data, and

wherein the combining step comprises the step of arithmetically combining the pixels of said strength adapted spatial domain watermark data and the spatial domain pixels of said material.

25. (Currently Amended) The method of claim 24, wherein the adapting step comprises the steps of:

generating strength control information; and
adapting the magnitude of the pixels of said spatial domain watermark data in
accordance with said strength control information.

26. (Currently Amended) The method of claim 25, wherein the generating strength
control information step comprises the steps of:

receiving the spatial domain pixels of said material; and
analyzing each ~~value~~ pixel of said material; ~~and~~
~~generating the strength control information with respect to each analyzed value of said~~
~~material.~~

27. (Canceled)

28. (Original) The method of claim 27, wherein the said material is one or more of
audio material and image material.

29. (Original) The method of claim 27, wherein the said material is data
material.

30. (Previously Presented) A computer program product comprising software code for
performing the steps of claim 21 when said product is run on a computer.